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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------|-------------|----------------------|---------------------|------------------|
| 10/700,451 | 11/05/2003 | Hidefumi Natsume | 8006-1026 | 6372 |
| 466 | 7590 | 10/15/2007 | EXAMINER | |
| YOUNG & THOMPSON | | | ABELSON, RONALD B | |
| 745 SOUTH 23RD STREET | | | ART UNIT | PAPER NUMBER |
| 2ND FLOOR | | | 2619 | |
| ARLINGTON, VA 22202 | | | MAIL DATE | DELIVERY MODE |
| | | | 10/15/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/700,451 | NATSUME ET AL. | |
| | Examiner | Art Unit | |
| | Ronald Abelson | 2619 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 06 September 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,2,5,6,8,10,12,14,16,17,19,21,23 and 25 is/are rejected.
- 7) Claim(s) 3,4,7,9,11,13,15,18,20,22 and 24 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 06 September 2007 and 05 November 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 - Certified copies of the priority documents have been received in Application No. _____.
 - Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

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Note, given the term "expansion VLAN tag" is not a term of art, the examiner will interpret "expansion VLAN tag" to be "VLAN tag".

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 6 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "an expansion VLAN tag at the top or all the expansion VLAN tags" is ambiguous.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 8, 10, 12, 14, 19, 21, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Okano (US 2005/0058132).

Regarding claims 1 and 14, Okano teaches a unit which (fig. 1 box 17), when a transmission destination area of said frame is different from a transmission source area, rewrites said expansion VLAN tag of said frame into an expansion VLAN tag of the transmission destination area (rewrites VLAN tags, [0062], VLAN tag is rewritten when communication packet is output to a different virtual network, [0078]).

Regarding claim 2, a first table which stores header information of said frame (fig. 3, [0066, 0064]) and information indicates from which area said frame is received (fig. 2, input network, [0065]).

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Regarding claims 8 and 19, a unit for one-to-one connecting LANs (fig. 1 box 7) which handle said layer 2 frame to enable communication between LANs having the layer 2 frames whose kinds are different (network not compatible with virtual network, [0016]).

Regarding claims 10 and 21, a unit for one-to-N connecting LANs which handle said layer 2 frame to enable communication between LANs having said layer 2 frames whose kinds are different (network not compatible with virtual network, [0016]).

Regarding claims 12 and 23, a unit for N-to-N connecting LANs which handle said layer 2 frame to enable communication between LANs having said layer 2 frames whose kinds are different (network not compatible with virtual network, [0016]).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 25 rejected under 35 U.S.C. 103(a) as being unpatentable over Okano in view of applicant's admitted prior art 'AAPA'.

Regarding claim 25, Okano teaches an input for connection to a first area network of a wide area network to receive a layer 2 frame with an expansion VLAN tag of the first area network (fig. 1 box 11). See input network 1a.

Okano teaches an output for connection to a separate, second area network of the wide area network (fig. 1 box 11). See output network 5c.

Okano teaches a line card (fig. 1 box 17) for i) terminating the received frame, ii) rewriting the expansion VLAN tag of the first area network into an expansion VLAN tag of the second area network, and iii) forwarding the frame with the expansion VLAN tag of the second area network from the output to the second area network (rewrites VLAN tags, [0062], VLAN tag is rewritten when communication packet is output to a different virtual network, [0078]).

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Although Okano teaches first and second networks, the reference is silent on the first and second area networks being part of a wide area Ethernet network.

AAPA teaches the first and second area networks being part of a wide area Ethernet network (fig. 8).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Okano by implementing the system in a wide area Ethernet network, as suggested by AAPA. Adhering to Ethernet standards can perform this modification. This modification would benefit the system since Ethernet is a globally accepted layer two standard and implementing the system in a wide area Ethernet network would allow the system to be more easily integrated into larger systems.

7. Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okano as applied to claims 1 and 14 above, and further in view of AAPA.

Okano is silent on the layer 2 frame is an Ethernet frame.

AAPA teaches the layer 2 frame is an Ethernet frame (fig. 8).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Okano by implementing

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the system in a wide area Ethernet network, as suggested by AAPA. Adhering to Ethernet standards can perform this modification. This modification would benefit the system since Ethernet is a globally accepted layer two standard and implementing the system in a wide area Ethernet network would allow the system to be more easily integrated into larger systems.

Allowable Subject Matter

8. Claims 3, 4, 7, 9, 11, 13, 15, 18, 20, 22, and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald

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Abelson whose telephone number is (571) 272-3165. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7439. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RA
Ronald Abelson
Examiner
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